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ABSTRACT

Based on previous research showing five examples of verb reduplication in Majang, a member of the Nilo-Saharan language family, this paper presents more specific examples of verb reduplication, its different uses, and the phonological rules governing it. Examples of possibly reduplicated forms from other parts of speech are also given, and data suggesting some reduplication in Proto-Surma are presented. A verb prefix that may be confused with reduplication because it covers some of the same semantic range and can appear in phonologically similar forms is described. (Author/MSE)

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REDUPLICATION IN MAJANG

Pete Unseth

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4 Summary

1 Introduction

Majang is a member of the Nilo-Saharan family of languages, part of the Surma cluster. It is spoken in southwestern Ethiopia in Kefa and Illubabor provinces, with a small group also in Wellega.[1] There are only two published linguistic descriptions, one by Cerulli (1948) and a recent, more comprehensive and reliable one by Bender (1983).

In his article, Bender gives five examples of verb reduplication in Majang (1983a:121). Building on Bender, this present paper gives many more examples of verb reduplication, explains the different uses of reduplication, and describes the phonological rules for reduplicating. Examples of (possibly) reduplicated forms from other parts of speech are also given. Comparative data is also given to show that some reduplication was also found in Proto-Surma. In section 3, a verb prefix tV- is described, which may be confused with reduplication, since it covers some of the same semantic range and can appear in forms phonologically similar to reduplication.

2 Reduplication

As mentioned above, Bender briefly discussed the

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function of reduplication in Majang verbs. Many other words also appear to be reduplicated. The phonological rules for verb reduplication (and nouns derived from verbs) are clear, but other words that appear to be reduplicated can reduplicate by different rules. The term "reduplication" is sometimes used in this paper in a broad sense to include any word that repeats a syllable or more, even if there is no clear evidence of a non-reduplicated root.

Sapir noted that "The process [of reduplication] is generally employed, with self-evident symbolism, to indicate such concepts as distribution, plurality, repetition, customary activity, increase of size, added intensity, continuance," (1921:76). In a cross-language study of reduplication, Moravcsik observed that "The most outstanding single concept that reduplicative constructions recurently express in various languages is the concept of increased quantity ... quantity of referents and amount of emphasis," (1978:317). Both of these observations are in harmony with Bender's observation that reduplicated verb forms in Majang are used to denote "intensification and related notions," (1983a:121). Reduplication in Majang, however, goes beyond this to include some tense and aspect paradigms, as well.

2.1 Formation of reduplicated verb stems

Before giving any examples of reduplicated verbs, a brief listing of verb root types is given below. (Since reduplication follows the same pattern for long and short vowels, this listing of syllable structures does not distinguish long and short vowels.) Verb roots can be one or two syllables, in a variety of syllable shapes, the most common being CVC, such as **kɛt-** 'chop' and **baal-** 'dance'. Other patterns include CV **gii-** 'grind grain', CVCVC **jumur-** 'answer', CVCCV **turku-** 'invert', CVCV **tiro-** 'sneeze', CVCC **ʔorp-** 'give a name', CVCVC **moomon-** 'weed', and CVCCVC **kurkudʕ-** 'tie'.

The reduplication pattern in all examples of verb reduplication is predictable, (with a possible exception given below). The initial consonant-vowel sequence of the final syllable of the stem is reduplicated.[2] The same rule also explains the formation of Bender's duplicated verb forms. The reduplicated form carries the same tone as the stem. (To avoid breaking up syllables in the morpheme-by-morpheme glosses, reduplication will be treated as being prefixed to the final syllable, but this does not mean that this matter is settled.) The following examples demonstrate this reduplication process with monosyllabic and disyllabic roots.

If the stem is monosyllabic, the initial consonant-vowel sequence of the stem is reduplicated as a prefix, as in **jojokiikan** 'they wounded each other' from **jok-**. If the stem is disyllabic, the initial

consonant-vowel sequence of the final syllable is reduplicated as an infix, as in **bˤokokotiikan** 'they killed each other' from **bˤokot**.

So far, I have found only one CVCC stem, **ʔorp** 'give a name'. For such stems, assuming there are others, this rule will have to be modified, since it reduplicates as **ʔororopaaŋ**. In this case, the penultimate consonant reduplicates with a vowel that is not found in the stem, though it is an echo of the stem vowel.[3]

(1) **Reduplicated monosyllabic roots:**

gloss	root	3s present continuous
wash	ʔaad-	ʔaaʔaadŋ
chop	kɛt-	kɛkɛtŋ
grind grain	gii-	giigiiŋ

(2) **Reduplicated disyllabic roots:**

weed	moomon-	moomomoŋ
invert	turku-	turkukuŋ
tie	kukudˤ-	kukudˤɪŋ
answer	jumur-	jumumurŋ

2.2 Uses of reduplicated verbs

Verbs marked by reduplication have a number of distinctive uses. These are listed below. Some of these are obviously related, such as intensity and repetition and reciprocity. This paper attempts to list etic categories, rather than emic. Some of the examples given are from Bender (1983), but these have all been checked.

2.2.1 Intensive action. Reduplication can be used to mark action as being more intense: **ŋuuŋuulikoŋ** 'he broke it to bits', as opposed to simple **ŋuulikoŋ** 'he broke it', from the stem **ŋuul**.

2.2.2 Repeated action. Repetition or habitual action can be marked by reduplication, with the meaning "do all the time" or "do again and again".

(3)

gloss	root	reduplicated	translation
eat	dˤaam-	dˤadˤami	'eat all the time'
speak	ton-	totoni	'speak all the time'
bend	yik-	yiyikiŋ	'sway back and forth'
bring	diil-	didilkɔɔŋ	'bring all the time'[4]

Reduplication to mark repeated action can also be used in the imperative: **kɛtɪk** 'chop!' (from **kɛt-**) is reduplicated to **kɛkɛtɪk** 'chop repeatedly!'. Also, **yawok** 'slice!' (from **yaw-**) is reduplicated to **yayawok** 'slice repeatedly!'.

This reduplication is also used in negative imperative forms:

(4) kati yawɪn! 'don't slice'
kati yayawɪn! 'don't slice repeatedly'

Reduplication is also found with structures similar to infinitives, e.g. **dˀeaa yayaw** 'I want to slice repeatedly.' Such reduplication is also used in finite forms, such as the past tense, **yayawkɔŋ** 's/he sliced repeatedly'.

Reduplication for intensive and repetitive can also be found in negative indicative sentences. This is significant since many verbs have irregular forms when they are negated (see Unseth (forthcoming).)

(5) Ku-ii-ko ya-yaw-e.
NEG-1p-PST DUP-slice-NEG
'We did not slice repeatedly.'

(6) Ku-ii-ko ŋuu-ŋuul-e.
NEG-1pl-PST DUP-'break'-NEG
'We did not shatter.'

2.2.3 Reciprocal action. Reduplication is used to mark verbs for reciprocity, the idea that "they did it to each other". The morphology is marked on the following example. (with n3 meaning "non-third person" and IV meaning "intransitive"):

(7) ko-koñ-ik-ar-ko-ŋ
DUP-help-n3-2p-PST-IV
'You (pl) helped each other.'

The following examples are all 3rd person plural, past tense, meaning 'they did it to each other':

(8)

gloss	root	reduplicated
killed	bˀokot-	bˀokokotiikoŋ
wounded	jok-	jojokiikoŋ
gave to	gij-	gigijiikoŋ
loved	por-	poporiikoŋ
hated	bˀoy-	bˀobˀoyiikoŋ
helped	koñ-	kokoñiikoŋ
called	riy-	ririyikoŋ
fought	tim-	titimiikoŋ
saw	dɛn-	dɛdɛniikoŋ
knew	dˀigir-	dˀigigiriikoŋ
insulted	ñon-	ñoñoniikoŋ
washed	ʔaad-	ʔaaʔaadiikoŋ

Reciprocal action can also be marked on 1st and 2nd person plural, as we'll

(9) 1st per: **totonikiikoŋ** 'we conversed with each other'
kokoñikiikoŋ 'we helped each other'
2nd per: **totonikarkoŋ** 'you conversed with each other'
kokoñikarkoŋ 'you helped each other'

Reduplication is also used to mark imperative reciprocals. The root for 'love' is **por-**, which reduplicates to form **poporikoŋ** 'they loved each other'. The imperative 'love each other' is the reduplicated form **impoporike**. (The simple 2nd person plural imperative 'love!' is **impore**.)

Reduplication to mark recipocal action is also found in the negative, as in the following:

(10) Ku-ɛr-ko wo<-no->noy-it.
NEG-3p-PST exchange-DUP-NEG
'They did not exchange with each other.'

2.2.4 Present continuous. Reduplication is also used to mark a present continuous action when the action is in progress as it is said, such as "I am eating now." This reduplication can occur on both transitive and intransitive verbs, in all persons and numbers. Examples are given below:

(11)

gloss	**root**	**reduplicated**	**translation**
go	ŋaar-	ŋaaŋaarŋ	'He is now going.'
crack	laal-	laalaaliŋ	'It is now cracking.'
thatch	ʔutum-	ʔututumiŋ	'They are now thatching'
kill	bˤokot-	bˤokokorŋ	'He is now killing.'[5]
beat	bol-	bobolaaŋ	'I am now beating.'
split	palat-	palalataaŋ	'I am now splitting.'
chop	kɛt-	kɛkɛtaaŋ	'I am now chopping.'
err	tik-	titikaaŋ	'I am now erring.'

Note that the last three examples may be confused with the **tV-** prefix discussed in section 3.5. In this case, the initial **ti-** is a duplication of the stem, not the **tV-** found elsewhere.

Reduplication for present continuous is also found in negated verb stems.

(12) gii-gii-k-aa-ŋ
DUP-grind-n3-1s-IV
'I am now grinding.'

K-aa gii-gii-t.
NEG-1s DUP-grind-NEG
'I am not grinding.'

Reduplication to show present continuous action is also found in the passive voice. Compare the active and passive sentences below:

(13) gii-gii-0-ŋ
DUP-grind-3s-IV
'S/he is now grinding.'

gii-gi-0-e-ŋ
DUP-grind-3s-PSV-IV
'It is now being ground.'

2.2.5 **Imperfect future.** The grammatical label of this category is admittedly tentative. These forms indicate that the action has not yet been done, but that it will be done in the future, such as 'I have not yet eaten,' but implying "I will eat." This is not a true negative; in a true negative construction, the negative verb is **ku** and true negated verbs are postposed, often in a suppletive form. (see Unseth (forthcoming) for description of negatives.)

(14)

Gloss	Root	Reduplicated	Translation
converse	ton-	intotonin	'He hasn't yet conversed.'
argue	palam-	inpalalamin	'He hasn't yet argued.'
thatch	ʔutum-	inʔututumin	'He hasn't yet thatched.'
grind	gii-	ingiigiiyin	'He hasn't yet ground.'
eat	dˤam-	indˤadˤamin	'He hasn't yet eaten.'

As further evidence that this is not a negative, no verb form is postposed to the end of the sentence, as in the following example:

(15) Inkɛkɛt kɛɛt.
3s-chop tree
'He hasn't yet chopped a tree.'

2.2.6 **Third person plural.** Cerulli claimed to find reduplication in the verb morphology marking third person plural subject, but gave no examples to illustrate this (1948:141,142). The only third person plural examples found in his data show no sign of this, only a sufix -ar-, which is exactly what Bender later described (1983a:131). Cerulli may have misunderstood -k-, a directional marker, in his examples, such as **melarkiko** 'they came' (1948:142).

Bender found the same grammatical form, but demonstrated that the directional -k- and person marker -ar- have metathesized, a process found is several verbs of motion (1983:131,132). The underlying morphemes of Cerulli's "**melarkiko**" are as follows:

(16) mɛl-k-ar-ko
come-DIR-3p-PST

This example of third person plural, then, is not, after all, reduplication. The first -k- is a directional marker, the second part of the past tense morpheme.

Cerulli may also have been misled by a sentence like:

(17) Ku-k-u-ko mɛlɛ.
NEG-DIR-3s-PST come
'He did not come.'

Cerulli's discovery of reduplication in the third person plural is therefore to be disregarded.

2.2.7 Derived forms. The Majang form for 'blood' is a loan, **yɛrum**. From this noun, Majang has derived a verb **yɛrum**, 'bleed'. This verb, derived from the noun, reduplicates by the usual patterns: **yɛrurumŋ** 's/he is bleeding'.

Derived nouns can also be built from reduplicated verb forms:

(18) **kɛkɛtkan** 'chopper' (one who chops a lot of wood)
yayawkan 'slicer' (one who slices a lot)

2.3 Other reduplicated words

Many other words appear to be reduplicated, including nouns, adjectives, some verb roots, and adverbs.

Several other nouns which have repetitive syllables have not been traced to non-repetitive forms. These include: **diidi** 'scar', **kooko** 'snake' (also found in Suri and Didinga), **wowoj** 'frog', **jiiji** 'ancestor', **loolomi** 'charcoal'.[7] 'finger' **polpol** (compare 'fingernail' **copolkoi** and Me'en 'finger' **kobolkit**).

Reduplicated kinship terms are common throughout the world, such as "mama" and "papa". In Majang, these include: 'mother (of second person)' **ŋaaŋa** , 'aunt' **maame**, 'Daddy' **baabey**, 'father (of 2nd person)' **bˤaabˤa** (the differrence in the articulation of the bilabial stops on the two terms for 'father' was confirmed in careful checking).

One reduplicated adverb has also been found, **agurgur** fast/quickly', as in **reeri agurgur** 'He ran fast'.

A few verbs have synchronic roots that may represent diachronic duplication, though unduplicated roots have not been found. Cerulli gave the verb 'to tie' as **kurkur-**, apparently a fully reduplicated verb stem (1948:161), though my Majang contact rejects this, giving **kurkudˤ-**, which Cerulli had listed as an alternate).

The verbs 'enter' **guuguñ-**, 'weed' **moomon-**, and 'rub' **moomoj-** all appear to be reduplicated, but cannot be reduced to a non-duplicated form. On the contrary, they are subject to the usual reduplicating patterns: **guuguguñŋ** 's/he is entering' and **moomomonŋ** 's/he is weeding' and **moomoomojaan** 'I am rubbing'. The noun for 'weed' is related to this apparently reduplicated verb root, **moomonan**.[8]

Some reduplicated intransitive adjectival verbs have been found. Two of them are translated (into Amharic) as 'soft': **ñulñul** (for surfaces), **kokoŋ** (for foods). Two other reduplicated adjectives were found, **dˤidˤik** 'right (hand)' and **dɔdɔŋ** 'wet' (the **-ŋ** being a suffix). Other verbs in this category include **kalkal** 'be dangerous' and **dˤodˤoy-** 'exceed in height'.

2.4 Pseudo-reduplicated forms

Not surprisingly, various sequences of similar sounding morphemes can combine to produce sequences of similar syllables that look like reduplicated words.

(19) ku-O-ku-ko tar diilɛ.
NEG-3s-DIR-PST meat bring
'He did not bring meat.'

kaaka-katok-e tak
cave-PL-LOC in
'in caves'

2.5 Comparative data

Within Surma, explicit descriptions of reduplication have been found in two other languages, Me'en and Murle. In Me'en, Ricci found verb reduplication used to express "repetition or intensity of an action," (1972:184). He found reduplication of the beginnings of stems, the ends, or entire stems. (The limited number of examples and the seeming lack of systematic change in meaning on the reduplicated stems raises doubts about how productive and widespread the process is in Me'en.) This reduplication does not follow so regular a pattern nor is it so integrated into the grammar as in Majang.

In Murle, Arensen discovered "the intransitive marker in the imperfect is a reduplication of the final consonant of the verb stem," (1982:85). He also uses the term "reduplication" to describe certain other morphemes in Murle, but the term is not appropriate. In his subjunctive and perfect examples, it is better analyzed as vowel harmony. He speaks of reduplication of consonants in the imperfect, but it is consonant assimilation (1982:63-69). There does appear to be at least one reduplicated verb root in Murle, **liŋliŋ** 'work'. The Murle noun **riiriton** 'reflection' is a probable reduplicated form. Cognate non-reduplicated forms are documented in three other Surma languages: Majang **rii** 'shadow (of animate)', Didinga **lori** 'shadow, and Mursi **rii** 'shade'.

There is no description of reduplication in other Surma languages, though, not surprisingly, other Surma languages have words that appear to be reduplicated. Didinga, for instance, has 'idly' **takaktak**, 'divination by pebbles'

tooto, 'cry of alarm' **lulu**, **mamai** 'maternal uncle', etc., (Driberg 1931). The Tirma form for 'cold' is **malala** and Suri 'claw' is **tɛrtɛra**. There is not enough data available to say anything beyond the observation that such seemingly reduplicated words exist.

Though Turton and Bender did not specifically discuss reduplication in Mursi, there is at least one example of reduplication in the data. The singular form of the adjective 'big' is **bwi**, which reduplicates to **bibi** when modifying a plural noun (1976:555). This reflects the tendency of Surma languages to mark adjectives for plural.

This form preserves a Proto-Surma pattern of reduplication for marking number on the adjective 'big'. This gives at least one solid example that a reduplication process was found in Proto-Surma. The plural of the adjective 'big' also shows (diachronic) reduplication in Majang (Northern Surma) and Me'en and Mursi (Southern Surma):

	singular	**plural**
Majang	obii	bobɛr
Me'en	buitiui	biibii-da
Mursi	bwi	bibi
Murle	appi	
Shuro	buitini	
Suri	abbo	
Tirma	abbu	

Singular and plural of 'big' in Surma languages

The above chart suggests a Proto-Surma form of the approximate shape ***abi** or ***abu** meaning 'big', with a reduplicated plural form.

3 Prefix tV-

Majang has a prefix tV- which sometimes covers areas of meaning similar to reduplication. Also, on verbs with initial tV- sequences, it mimics reduplication. The vowel of the prefix is left unspecified since it always harmonizes totally, becoming identical in point of articulation to the first vowel of the verb stem. Examples of this prefix are presented here, with the verb in the imperative form, with and without the prefix. The imperative suffix is -Vk, the vowel usually harmonising (at least partially) to the stem. This, together with the harmony of the prefixing process, produces some three syllable words having the same vowel in each syllable.

gloss	prefixed imperative	root
dig	tokowuk	kow-
fear	tubˀuruk	bˀur-
help	tokoñok	koñ-
cry	tukudˀuk	kudˀ-
cough	takanɪk	kan-
touch	tukumuk	kum-
fly/jump	tipirik	pir-
pierce	tumukuk	muk-
bite	takawuk	kaw-
chop	tɛkɛtɪk	kɛt-
swim	teleyik	ley-
flee	togonok	gon-
call	tiriyik	riy-
return	tumurak	mur-

Forms with tV- prefix

3.1 Grammatical uses of tV- prefix

The tV- prefix appears in a limited number of grammatical environments, the most common being the imperative. However, in negative imperatives, the prefix is lost:

(21) Tɛ-kɛt-ɪk! 'chop a lot!'
Kati kɛt-ɪn! 'don't chop!'
*Kati tɛ-kɛt-ɪn! A prefixed form is not acceptable.

I have not been able to elicit any prefixed past tense forms. Some verbs are prefixed to form infinitives. It is interesting that the verbs with prefixed infinitives are often the same verbs with prefixed negated stems. These prefixed infinitives include: 'to chop' tɛkɛ (from kɛt-, verbs often lose final consonants in the infinitive), 'to call' tiriy, 'to laugh' togo (from rog-), 'to flee' togon, and 'to swim' tiliiy.

The prefix can also appear in the negated form of some verbs, (though some negated verb stems are suppletive). For example, the stem for 'call' is riy-, as in riyŋ 'he calls'. But in the negative, the prefix ti- is obligatory:

(22) Ku-ko ti-riy.
NEG-PST tV-call
'He did not call.'

It is not permissible to say *kuko riy. Other verbs with tV- obligatorily prefixed to the negated stem include 'swim' liiy-, negative tiliiy, 'cry' kudˀ-, negative tukudˀ, and 'flee' gon-, negative togon.

Verbs cannot be both reduplicated and prefixed with tV- at the same time. For example, the root for 'fear' is bˀur,

often prefixed with tV-, as in tubˤuruk 'fear!'. However, 'He is now fearing' is bˤubˤurŋ, reduplicated, but cannot be prefixed. A prefixed reduplicated form, such as *tubˤubˤurŋ is not acceptable.

3.2 Derived nouns based on prefixed verbs

Some nouns are derived from the prefixed form of the verb. The verb 'help' has the stem koñ-, which is sometimes prefixed with tV-, in this case to-. The derived noun 'help, assistance' is built on the prefixed verb, tokoñ. The derived agent 'helper' is also built on the prefixed form, tokoñtan.

The verb stem wɛy 'roast (grain)' usually appears with the prefix tɛ-. The product form is based on the prefixed form of the verb: tɛweytanak 'roasted grain', (-tan marks product, -ak plural). Similarly, the agent 'sorcerer' is tamaltan, from the verb root mal- 'do sorcery'.

The word 'name' is tiriya, based on the prefixed form of 'call' riy. The noun 'gift' is tigi, from the prefixed form of the verb gij- 'give'. The verb root 'fear' is bˤur, often prefixed with tV-. The noun 'fear' is a prefixed form, tubˤur, as in lakaa tubˤur 'I have fear' ('I am afraid').

3.3 Semantic aspects of tV-

The function of this tV- prefix is far from clear. When translating into Amharic, a Majang language helper suffixed an object marker onto the Amharic verb form for several tV- forms, such as 'fear', 'dig', 'bite', 'swim'. The prefixed form for 'pull out' was given with an Amharic causative prefix. These forms suggest some sort of transitivizing function.

Deliberately asking Majang speakers to clarify distinctions between prefixed and non-prefixed forms elicited a variety of responses. One person suggested that the prefixed tokowuk would mean 'dig it out!', as oppossed to the non-prefixed form meaning simply 'dig!'. Another man said that the prefixed form tipirik meant 'jump far!'. The prefixed form tukumuk 'pierce!' was given with the example of throwing a spear, piercing an object at some distance. One person said that he would use the non-prefixed form koñok 'help!' with a family member, rather than use the prefixed tokoñok. The imperative of 'give' was given as gijik (stem gij), but 'give me!' was given as prefixed tigit, (the -t- is a first person singular object marker (Bender 1983:128), but the loss of the stem-final consonant is unexplained). The imperative for "ferment (mead)!" is yaakɪk, but the prefixed tayakɪk means "ferment it later!" (the shortening of the vowel in the stem of the prefixed form is unexplained). There is no obvious thread of meaning

connecting all of these explanations. They suggest that the prefix indicates some sort of intensity, but this is far from clear. The prefix is no longer productive in Majang, but it is still preserved in many words (like the English prefix con-).

3.4 Restrictions on the affixation of tV-

This prefix can only be affixed to a restricted set of verbs. In a random check of 50 verbs, only eleven could be prefixed. Those that can be prefixed include both transitive and intransitive verbs. Forms of the verb 'to be' have not been found with tV-. This restriction on the verbs that can be prefixed is also discussed in sec. 3.6.

3.5 Potential ambiguities with stem initial /t/ and reduplication

The presence of the tV- prefix is not always obvious. Firstly, some verb roots begin with t- followed by a vowel. Secondly, some reduplicated forms resemble prefixed forms.

In the first category, many verbs have initial t- followed by a vowel, but in these, the initial sequence of t- and a vowel is part of the root, not removeable. These t- initial verbs include, 'sneeze' tiro-, 'err, make a mistake' tik-, 'begin' tuuk-, 'hear' tey-, 'pierce' tim-, 'roast (meat)' tuuj-, 'open (a door)' tay-, 'mediate' taak-, and 'be thin' tɛŋɛɛl-.

The fact that the initial t- is part of the stem, not the prefix, is especially clear if the vowel of the first syllable is different than the vowel of the second, as in tiroik 'sneeze!'. This is also clear if the first syllable ends in a consonant, such as turkuk 'invert'.

The second possible ambiguity is for monosyllabic verbs with a root of the shape tV(C) to reduplicate in such a way as to resemble a tV- prefixed form. This looks the same as the tV- prefixed forms of the same verbs, since the vowel is always the same as the stem vowel in both cases.

(23)

gloss	root	prefixed	translation
pierce	tim-	titimaaŋ	'I am now piercing.'
hear	tiy-	titiyarɪn	'They are now hearing.'
err, lose	tik-	titikin	'He is now losing, erring.'

For these forms, the meaning indicates it is a case of reduplication. However, for the imperatives 'pierce!' titimik and 'err, lose repeatedly!' titikik, it is not obvious if these are examples of reduplication or tV- prefixation, since both are allowed for imperatives, such as yayawɪk 'slice repeatedly!' (clearly reduplicated from yaw-) and tɛkɛtɪk 'chop repeatedly!' (clearly a tV- prefixed form from kɛt-).

It is possible to determine if a form is reduplicated or prefixed with tV- by forming a negative imperative. The tV- prefix is not allowed in the negative imperative (see Sect. 2.1.1), but it is allowed for reduplicated forms, such as **kati kɛkɛtɪn** 'don't chop repeatedly!'. This test shows that **titimik** 'pierce repeatedly!' is a not a prefixed form but a reduplicated form. Since the negative imperative can be **kati titimin** 'don't pierce repeatedly!', this must be reduplicated, since only reduplicated forms (but not tV-prefixed forms) are allowed in negative imperatives.

3.6 Comparative data

There is a description of a tV- verb prefix in at least one other Surma language. It appears in Didinga, where it is also difficult to define precisely. Odden analyzed it as part of a "completive stem" (1983:162) It is not (yet) possible to determine if these are genuine cognates, but the resemblance in phonological shape and in function is striking. Odden wrote, "My basic hypothesis regarding tV- is that it is a lexically governed tense-aspect prefix: (note that the tV- prefix appears only in the completive). There were a few cases where I would like to treat tV- as simply the first syllable of a polysyllabic stem ... [It generally seems to] correlate with something like ... specific, definite, complete," (personal communication 1985). In Didinga, as in Majang, the vowel of the prefix is identical to the following stem vowel.

One difference between Didinga and Majang in the use of tV- is that tV- is not found on negated verbs in Didinga (Odden 1983:162), but it is in Majang (see 2.1).

In both Didinga and Majang, the prefix is found only on a restricted set of verbs. Of the small set of verbs that take the tV- prefix in Odden's examples, at least one seems cognate with a prefixed form in Majang. Odden gives the "completive stem" **tEŋEd** for 'chop', from **ŋEd-**, (1983:162). In Majang, the root for 'chop' is **kɛt-**, prefixing to form **tɛkɛt-**. Bender's unpublished Suri notes give **tɛŋɛra** for 'cut (wood), which may also represent a tV- prefix on a cognate stem.

There is also evidence of a tV- prefix in Me'en. Ricci lists **ta-** as a probable prefix in the form **tabadaboy** 'to smear' since he found probable cognates without the ta- (1972:396,397). He also gave 'to blow' with two forms, based on the root **bai-**, **tabaidai** and **babaiboi** (1972:449). This also suggests a prefix tV-.

Though it is not possible to exactly equate the tV-prefixes in the these languages, Odden's suggestion of "complete" or "definite" is intriguing and not incompatible with the Majang examples.

3 Summary

In summary, this paper has demonstrated how Majang reduplicates words for a variety of functions, not only for intensification, but also for tense and reciprocal action.

This discussion of Majang reduplication has also demonstrated that reduplication was used in Proto-Surma, and has given some directions for the study of reduplication in Proto-Surma and other Surma languages.

This paper has also presented the first evidence on the Majang verb prefix tV-, differentiating it from reduplication. Evidence has also been presented that this morpheme was found in Proto-Surma.

Notes

1. The data for this paper was gathered in Ethiopia between August 1984 and March 1986, while I worked under the Institute of Ethiopian Studies, Addis Ababa University. In addition to the many who have cooperated at AAU, I wish to acknowledge the cooperation of a number of local officials who have made field work possible. On one field trip, Anbessa Tefera was sponsored by the Institute of Language Studies Research and Publications Committee. Special thanks to the Majang people who have provided the data and answered my many strange questions. This paper has benefitted from comments by E.-A. Gutt, R.J. Sim, H.-G. Will, J. Clifton, and C. Kutsch Lojenga. M. L. Bender kindly provided unpublished material on Surma languages. My supportive wife, Carole, makes it all possible.

Bender listed six vowel phonemes for Majang (1983). I have now become convinced of a vowel distinction based on Advanced Tongue Root, as Odden has found in Didinga (1983). However, since my reanalysis of the vowels and my sorting out of grammatical and lexical tone is not yet complete, these two important phonological points are regretfully omitted from this paper.

The abbreviations should be clear from the examples. The digraphs b^{ς} and d^{ς} represent voiced implosive stops.

For descriptions of relevant syntactic matters, such as negative sentences and their sometimes suppletive stems, see my forthcoming syntax paper.

2. Since the reduplicated CV is inserted next to the original CV, it is not clear whether the reduplication is inserted before the final syllable or whether it is inserted just after the original CV sequence (just before the stem final consonant, if any).

3. The above gives a summary of the general rules for

reduplication in Majang. If more stems with final CC clusters are found (in addition to the single example ʔorp- 'give a name'), Majang will be an interesting language for the application of CV theory, such as Marantz's work (1982). Otherwise, the rules of reduplication for Majang are in harmony with the general principles of reduplication in other langauges (Moravcsik 1978).

4. I cannot explain why the long vowel of the stem becomes shortened in reduplicated form. In checking, I confirmed that it is genuinely short in the reduplicated form, but genuinely long in the stem form.

5. The final consonant of 'kill' becomes [r] by a morphophonemic rule that changes stops to liquids before a nasal. The underlying stem final /t/ of 'kill' is found when there is a following vowel, as in **bʔokokotaaŋ** 'I am now killing'.

6. Fleming cites the origin of this form in the Omotic Majoid languages (1983:544).

7. The Majang form for 'charcoal' may have originated not by reduplication, but by assimilation. The Murle form for 'charcoal' is **zolomo-**. In Majang, the initial /z/ could have been assimilated to the /l/ within the stem, resulting in **loolomi**. However, the opposite process, deriving the Murle initial /z/ by dissimilation is also possible.

8. This may be cognate with the form **mana** 'field' in both Murle and Didinga, as well as some Eastern Nilotic languages (Dimmendaal 1982:104). Since weeds quickly take over a field in the Majang swidden type of agriculture (Stauder 1971:26ff), a semantic shift from 'field' to 'weed' is very plausible.

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